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 s (tnf?)(5n)antibod?)(inhibit? or suppress? or block? or antagoni?)(20n) (viral or
virus?)(10n)(infect? or diseas? or patholog?)
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? s (tnf?)(5n)antibod?)(10n)(inhibit? or suppress? or block? or antagoni?)(20n)(viral or
virus?)(10n)(infect? or diseas? or patholog?)
>>>Unmatched parentheses
? s (tnf?(5n)antibod?)(inhibit? or suppress? or block? or antagoni?)(20n) (viral or
virus?)(10n)(infect? or diseas? or patholog?)
>>>Invalid syntax
? s (tnf?(5n)antibod?)(10n)(inhibit? or suppress? or block? or antagoni?)(20n) (viral or
virus?)(10n)(infect? or diseas? or patholog?)
Processing
Processing
          210242  TNF?
         2069909  ANTIBOD?
         4474825  INHIBIT?
          916085  SUPPRESS?
         1420634  BLOCK?
         1185063  ANTAGONI?
          833721  VIRAL
         1944683  VIRUS?
         3615242  INFECT?
         9296748  DISEAS?
         5084622  PATHOLOG?
     S40     112  (TNF?(5N)ANTIBOD?)(10N)(INHIBIT? OR SUPPRESS? OR BLOCK?
                  OR ANTAGONI?)(20N) (VIRAL OR VIRUS?)(10N)(INFECT? OR
                  DISEAS? OR PATHOLOG?)
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     S41      49  RD S40  (unique items)
? t s41/7/all

 41/7/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
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0015078154   BIOSIS NO.: 200400446073
Human cytomegalovirus-induced upregulation of intercellular cell adhesion
  molecule-1 on villous syncytiotrophoblasts
AUTHOR: Chan G; Stinski M F; Guilbert L J (Reprint)
AUTHOR ADDRESS: Dept Med Microbiol and Immunol, Univ Alberta, 6-25 HMRC,
  Edmonton, AB, T6G 2S2, Canada**Canada
AUTHOR E-MAIL ADDRESS: larry.guilbert@ualberta.ca
JOURNAL: Biology of Reproduction  71 (3): p797-803 September 2004 2004
MEDIUM: print
ISSN: 0006-3363
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Human cytomegalovirus (HCMV) is secreted apically from villous
  trophoblasts, thus congenital infection is not likely to occur by basal
  release across the basement membrane. As an alternative route, we
  hypothesize that an HCMV-infected villous syncytiotrophoblast (ST)
  upregulates intercellular adhesion molecule (ICAM)-1, causing blood
  monocytes to bind to the ST and induce apoptosis. Purified (>99.99%)
  populations of human villous trophoblasts were differentiated into an
  ST-like culture, infected with HCMV strain AD169, and assessed for ICAM-1
  expression by immunofluorescence.   ***infection***   strongly upregulated
  ICAM-1 24 h after challenge. ICAM-1 was also stimulated by transfection
  with viral genes IE2-55, IE1-72, and IE2-86, but not by UV-inactivated
    ***virus***  .   ***Infection***   with a green fluorescent protein recombinant
  virus allowed infection and ICAM-1 expression to be
  topographically located. We found that ICAM-1 was expressed on both
    ***infected***   and noninfected cells. Furthermore,   ***antibody***   to
  tumor necrosis factor (TNF)alpha and, to a lesser extent,
  interleukin (IL)1beta inhibited ICAM-1 upregulation on noninfected
  cells but not on infected cells. We conclude that HCMV IE proteins
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stimulate ICAM-1 expression on villous trophoblasts by paracrine release of TNFalpha and IL1beta, as well as by a direct effect on infected cells.

41/7/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0014788612 BIOSIS NO.: 200400169369
Melatonin and viral infections.
AUTHOR: Bonilla Ernesto (Reprint); Valero Nereida; Chacin-Bonilla Leonor; Medina-Leendertz Shirley
AUTHOR ADDRESS: Instituto de Investigaciones Clinicas 'Dr. Americo Negrette', Apartado Postal 1151, Maracaibo, Venezuela**Venezuela
AUTHOR E-MAIL ADDRESS: ebonillaro@yahoo.com
JOURNAL: Journal of Pineal Research 36 (2): p73-79 March 2004 2004
MEDIUM: print
ISSN: 0742-3098 _(ISSN print)
DOCUMENT TYPE: Article; Literature Review
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The therapeutic effects of melatonin against viral infections, with emphasis on the Venezuelan equine encephalomyelitis (VEE), are reviewed. Melatonin has been shown to prevent paralysis and death in mice infected with the encephalomyocarditis virus and to decrease viremia. Melatonin also postpones the onset of the disease produced by Semliki Forest virus inoculation and reduces the mortality of West Nile virus-infected mice stressed by either isolation or dexamethasone injection. An increase in the host resistance to the virus via a peripheral immunostimulatory activity is considered responsible for these effects. It has also been demonstrated that melatonin protects some strains of mink against Aleutian disease, and prevents the reduction of B- and T-cells as well as Th1 cytokine secretion in mice infected with leukemia retrovirus. In VEE-infected mice, melatonin postpones the onset of the **disease** and death for several days and reduces the mortality rate. This protective effect seems to be due to the increase in the production of interleukin-1beta (IL-1beta), as 100% of the **infected** mice treated with melatonin die when IL-1beta is **blocked** with antimurine IL-1beta antibodies. Although melatonin administration raises serum levels of tumor necrosis factor-alpha (TNF-alpha) and interferon-gamma (IFN-gamma), the mortality observed in neutralization experiments with the corresponding anticytokine **antibodies**, suggests that neither **TNF**-alpha nor IFN-gamma are essential for the protective effect of melatonin on murine VEE ***virus*** ***infection*** . Melatonin treatment also enhances the efficiency of immunization against the VEE ***virus*** . Reactive oxygen species have been implicated in the dissemination of this **virus**, and their deleterious effects may be diminished by melatonin. This indole ***inhibits*** nitric oxide synthetase activity and it is a potent scavenger of nitric oxide, which also plays an important role in the spread of the VEE virus. In conclusion, the immunomodulatory, antioxidant, and neuroprotective effects of melatonin suggest that this indole must be considered as an additional therapeutic alternative to fight viral diseases.

41/7/3 (Item 3 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013959227 BIOSIS NO.: 200200552738
Human cytomegalovirus-caused damage to placental trophoblasts mediated by immediate-early gene-induced tumor necrosis factor-alpha
AUTHOR: Chan Gary; Hemmings Denise G; Yurochko Andrew D; Guilbert Larry J (Reprint)
AUTHOR ADDRESS: Department of Medical Microbiology and Immunology, University of Alberta, 6-25 HMRC, Edmonton, AB, T6G 2S2, Canada**Canada

JOURNAL: American Journal of Pathology 161 (4): p1371-1381 October, 2002
2002
MEDIUM: print
ISSN: 0002-9440
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Infection of the fetal epithelium (trophoblast) lining the villous placenta by human cytomegalovirus (HCMV) accompanies placental inflammations and fetal intrauterine growth restriction. However, the consequences of **infection** on the villous trophoblast have not been explored. We show that HCMV ***infection*** of primary immature (cytotrophoblast-like) or mature (syncytiotrophoblast-like) cultures results in loss of half of the cells within 24 hours of **virus** challenge. Two-color immunofluorescence of HCMV immediate early (IE) gene expression and apoptosis (terminal dUTP nick-end labeling) revealed apoptosis only in uninfected cells. ***Antibody*** to tumor necrosis factor (**TNF**)-alpha completely **inhibited infection** -induced trophoblast apoptosis and cell loss, as did co-incubation with epidermal growth factor, known to ***inhibit*** trophoblast apoptosis. Transfection with HCMV immediate early- (IE)1-72 and IE2-86, but not IE2-55, expression plasmids induced paracrine trophoblast apoptosis **inhibitable** by epidermal growth factor or **antibody** to ***TNF*** -alpha. These results show that HCMV ***infection*** of villous trophoblasts leads to rapid loss of neighboring cells mediated by ***viral*** IE protein-induced TNF-alpha secretion. We propose that HCMV **infection** damages the placental trophoblast barrier by accelerating trophoblast turnover and decreasing its capacity for renewal.

41/7/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013780342 BIOSIS NO.: 200200373853
Tumor necrosis factor-alpha and nitric oxide in vertically HIV-1-infected children: Implications for pathogenesis
AUTHOR: Gonzalez-Nicolas Josefa; Resino Salvador; Jimenez Jose Luis; Alvarez Susana; Fresno Manuel; Munoz-Fernandez M Angeles (Reprint)
AUTHOR ADDRESS: Departamento de Inmunologia, Hospital General Universitario "Gregorio Maranon", C/ Doctor Esquerdo 46, 28007, Madrid, Spain**Spain
JOURNAL: European Cytokine Network 12 (3): p437-444 July-Sept., 2001 2001
MEDIUM: print
ISSN: 1148-5493
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We performed a cross-sectional study to investigate the plasma TNF-alpha and nitric oxide (NO) production in 44 vertically HIV-1-infected children, and the relationship with immunological status and viral replication. As a control group, 36 healthy, uninfected children were studied. Plasma TNF-alpha and NO levels were determined by ELISA. Viral load was quantified using standard assays. Cell proliferation, apoptosis and viral replication were evaluated in vitro by incorporation of (3H)-thymidine, flow cytometry and p24 antigen, respectively. Higher plasma TNF-alpha and NO levels were observed in HIV-1-infected children compared with healthy controls. We found a very strong correlation between plasma TNF-alpha and NO levels in HIV-1-infected children ($r=0.98$; $p<0.001$). Moreover, HIV-1-infected children with higher viral load (>4.7 log10) showed higher TNF-alpha and NO levels than those with viral load below this threshold. Interestingly, we detected inducible nitric oxide synthase (iNOS) mRNA in T-lymphocytes from HIV-1- ***infected*** children. To address their possible pathophysiological significance, we tested the in vitro effects of NO and TNF-alpha in HIV-1 replication. Addition of TNF-alpha and NO donors to

mitogen-activated, HIV-1-**infected** PBMC cultures produced a significant increase in ***viral*** replication. Moreover, HIV-1 replication in mitogen-stimulated, PBMC cultures was partially **inhibited** by iNOS specific **inhibitors**, and a neutralising, anti- ***TNF*** -alpha monoclonal ***antibody*** . Our results indicate that **TNF**-alpha and NO correlated with high **viral** load in HIV-1- ***infected*** children and favoured HIV-1 in vitro replication. These data suggest a detrimental role of NO in HIV-1 **infection**, and that NOS **inhibitors** may have some therapeutic benefit in HIV-1- ***infection*** .

41/7/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013752616 BIOSIS NO.: 200200346127
Caspase inhibition activates HIV in latently infected cells: Role of tumor necrosis factor receptor 1 and CD95
AUTHOR: Scheller Carsten (Reprint); Sopper Sieghart; Chen Peifeng; Flory Egbert; Koutsilieri Eleni; Racek Tomas; Ludwig Stephan; Ter Meulen Volker ; Jassoy Christian
AUTHOR ADDRESS: Institute for Virology and Immunobiology, Versbacher Strasse 7, 97078, Wuerzburg, Germany**Germany
JOURNAL: Journal of Biological Chemistry 277 (18): p15459-15464 May 3, 2002 2002
MEDIUM: print
ISSN: 0021-9258
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Stimulation of tumor necrosis factor receptor 1 (TNF-R1) triggers both caspase-dependent and caspase-independent signaling activities. The caspase-dependent signaling pathway induces apoptotic cell death in susceptible cells, whereas the caspase-independent signaling cascade leads to activation of nuclear factor kappaB and induces antiapoptotic signaling activities. Stimulation of nuclear factor kappaB via TNF-R1 is known to activate human immunodeficiency virus (HIV) replication in ***infected*** cells. Here we show that the broad range caspase **inhibitor** benzyloxycarbonyl-Val-Ala-Asp-fluoromethyl ketone (ZVAD) activates HIV replication in the chronically **infected** T-cell line ACH-2. ***Virus*** activation was caused by a sensitization of TNF-R1 toward endogenously produced tumor necrosis factor alpha (**TNF** -alpha). Neutralizing anti- ***TNF*** -alpha ***antibodies*** completely abolished the ***virus*** -inducing activity of ZVAD. Treatment of cells with TNF-alpha in the presence of ZVAD caused increased expression of TNF-alpha and induced enhanced ***virus*** replication. Activation of CD95, another member of the TNF receptor family, similarly triggered HIV replication, which was further enhanced in the presence of ZVAD. Our data show that caspase **inhibitors** sensitize both CD95 and TNF-R1 to mediate activation of HIV in latently ***infected*** cells. Activation of HIV replication in latent virus reservoirs is currently discussed as a therapeutic strategy to achieve eradication of HIV in patients treated with antiretroviral therapy. Our results point to a novel role for caspase inhibitors as activators of virus replication in vivo.

41/7/6 (Item 6 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013311568 BIOSIS NO.: 200100483407
Inhibition of tumor necrosis factor reduces the severity of virus-specific lung immunopathology
AUTHOR: Hussell Tracy; Pennycook Alasdair; Openshaw Peter J M (Reprint)
AUTHOR ADDRESS: Department of Respiratory Medicine, Imperial College of

Science, Technology and Medicine, National Heart and Lung Institute at St. Mary's Hospital, Norfolk Place, London, W2 1PG, GB, UK**UK
JOURNAL: European Journal of Immunology 31 (9): p2566-2573 September, 2001
2001
MEDIUM: print
ISSN: 0014-2980
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: TNF **antagonists** are effective treatments for rheumatoid arthritis and Crohn's **disease**, and have been tried with variable success in other ***diseases*** caused by immune damage. To test the hypothesis that **viral** lung **diseases** caused by respiratory syncytial **virus** or influenza **virus** are partly due to overproduction of **TNF**, we used anti-**TNF antibody** to treat mice with lung ***disease*** caused by these ***viruses*** . TNF depletion reduced pulmonary recruitment of inflammatory cells, cytokine production by T cells and the severity of illness without preventing ***virus*** clearance. These broad beneficial effects suggest that TNF **antagonists** might be tested as treatments of human viral lung ***diseases*** .

41/7/7 (Item 7 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013174909 BIOSIS NO.: 200100346748
Influenza virus A stimulates expression of eotaxin by nasal epithelial cells
AUTHOR: Kawaguchi M (Reprint); Kokubu F; Kuga H; Tomita T; Matsukura S; Suzaki H; Huang S-K; Adachi M
AUTHOR ADDRESS: Johns Hopkins Asthma and Allergy Center, 5501 Hopkins Bayview Circle, Room 1A58, Baltimore, MD, 21224-6801, USA**USA
JOURNAL: Clinical and Experimental Allergy 31 (6): p873-880 June, 2001
2001
MEDIUM: print
ISSN: 0954-7894
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background: Respiratory virus is one of the most common causes of airway-inflammation, but its pathogenic mechanisms are not well understood. Eotaxin is a potent eosinophil chemoattractant and is a selective agonist for C-C chemokine receptor 3 (CCR3). Although it has recently been demonstrated that epithelial cells express eotaxin, both in vivo and in vitro, there are few data concerning the expression in viral infection. Objects: We hypothesized that eotaxin may play an important role in attracting inflammatory cells into the airway after viral infection and analysed whether viral infection induces eotaxin in nasal epithelial cells in vitro. Methods: Nasal epithelial cells obtained from polypectomy for nasal polyp were **infected** with influenza virus A (subtype H3N2). The cells and supernatants were collected 8, 24 and 48 h after ***infection*** . Eotaxin mRNA was analysed by RT-PCR. Eotaxin concentration in the supernatants was analysed by enzyme-linked immunosorbent assay. We also examined a ***blocking*** assay to analyse the intervention of pro-inflammatory cytokines, TNF-alpha and IL-1beta in eotaxin production induced by influenza ***virus*** . Results: The results showed that eotaxin was expressed constitutively in uninfected cells, but was up-regulated for both mRNA and protein levels in **infected** cells. ***Blocking*** experiments using anti- ***TNF*** -alpha and anti-IL-1beta **antibodies** showed no effects of these agents on the level of eotaxin. In addition, UV-inactivated ***virus*** did not enhance the expression of eotaxin. Conclusions: These results suggest that influenza **virus** A **infection** in nasal epithelial cells

stimulates the expression of eotaxin, and may play an important role in the pathogenesis of airway inflammation by inducing eotaxin.

41/7/8 (Item 8 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013138260 BIOSIS NO.: 200100310099
Study on risk factors for transplacental viral infections; effect of bacterial factors and double viral infections on virus replication in placenta and amniotic membranes
AUTHOR: Jatczak B; Gejdel E; Pajak J; Podwinska J; Blach-Olszewska Z (Reprint)
AUTHOR ADDRESS: Institute of Immunology and Experimental Therapy, Polish Academy of Science, R. Weigla 12, 53-114, Wroclaw, Poland**Poland
JOURNAL: Placenta 22 (4): p360-371 April, 2001 2001
MEDIUM: print
ISSN: 0143-4004
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Among risk factors for vertical transmission of HIV there are listed concomitant viral and bacterial infections. Therefore the influence on the viruses replication in human placenta and amniotic membrane cultures of double viral infection with two unrelated viruses - encephalomyocarditis (EMCV) and vesicular stomatitis virus (VSV) - was studied and compared with the replication of the viruses in single virus infection (EMCV or VSV) in the same organ cultures. Additionally effect of bacterial factors - lipopolysaccharide (LPS) Escherichia coli and sonicated Treponema pallidum antigens (Tpa) - on VSV replication in the same culture system was studied and compared with VSV replication in untreated explants. Two effects were observed in double-virus **infected** cultures and also in bacterial factors treated cultures: ***inhibition*** and stimulation of virus replication. The kind of effect in the both cases was dependent on the presence or absence of innate antiviral immunity. In virus-sensitive organs double ***infected*** or treated with LPS or Tpa, **inhibition** of **virus** titer (2-5 log TCID50/ml) was observed. In the organs expressing the innate immunity, stimulation (1-4 log TCID50/ml) of ***virus*** replication was noticed. Contribution of endogenous TNFalpha in both reactions (stimulation and **inhibition**) was confirmed using **antibodies** against the ***TNF*** .

41/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012691147 BIOSIS NO.: 200000409460
Inhibition of NO production in macrophages by IL-13 is counteracted by Herpes simplex virus infection through TNF-alpha-induced activation of NF-kappaB
AUTHOR: Paludan Soren R (Reprint); Ellermann-Eriksen Svend; Malmgaard Lene; Mogensen Soren C
AUTHOR ADDRESS: Department of Medical Microbiology and Immunology, University of Aarhus, The Bartholin Building, DK-8000, Aarhus C, Denmark **Denmark
JOURNAL: European Cytokine Network 11 (2): p275-282 June, 2000 2000
MEDIUM: print
ISSN: 1148-5493
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Interleukin (IL)-13 is known to antagonize many interferon

(IFN)-gamma-activated functions in macrophages and among these, nitric oxide (NO) production. We have previously shown that this function of IL-13 is reduced in Herpes simplex virus type 2 (HSV-2)-**infected** macrophages. In the present study we show that IL-13 and IFN-gamma are indeed produced during ***infection*** of BALB/c mice with HSV-2. The lack of **inhibitory** function of IL-13 in **infected** macrophages, which was not overcome even at very high concentrations of IL-13, was not due to impaired IL-13 signalling, since **virus infection** did not affect IL-13-mediated activation of STAT6 (signal transducer and activator of transcription 6). Neutralizing tumour necrosis factor (**TNF**)-alpha **antibodies**, however, largely restored the effect of IL-13 on NO production in ***virus*** - ***infected*** macrophages. The same was observed after treatment of the cells with **inhibitors** of nuclear factor (NF)-kappaB activation, known to be involved in enhancement of IFN-gamma-induced NO production. Even though IL-13 reduced TNF-alpha secretion by 50%, this did not impair NF-kappaB activation in IFN-gamma-treated cells infected with HSV-2. The results indicate that TNF-alpha, secreted by virus-infected macrophages, activates NF-kappaB which impairs the IL-13-mediated inhibition of inducible NO synthase (iNOS) expression. This could imply that a sustained NO production would be focused to sites of active virus replication.

41/7/10 (Item 10 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012643367 BIOSIS NO.: 200000361680
Expression of eotaxin by normal airway epithelial cells after influenza virus A infection
AUTHOR: Kawaguchi Mio (Reprint); Kokubu Fumio; Kuga Hideki; Tomita Takeshi; Matsukura Satoshi; Kadokura Mitsutaka; Adachi Mitsuru
AUTHOR ADDRESS: First Department of Internal Medicine, Showa University School of Medicine, 1-5-8 Hatanodai, Shinagawa-ku, Tokyo, 142-8666, Japan **Japan
JOURNAL: International Archives of Allergy and Immunology 122 (Suppl 1): p 44-49 May, 2000 2000
MEDIUM: print
ISSN: 1018-2438
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Background: Viral infection is known to cause lung inflammatory disease, including bronchial asthma. The mechanisms of inflammatory cell accumulation into the airways after viral infection are not well understood. Eotaxin is a CC chemokine which is a potent and specific agonist for CC chemokine receptor 3 (CCR3). CCR3 is expressed on eosinophils, basophils and T lymphocytes. These cells are known to be key cells in the pathogenesis of asthma. Although it has recently been demonstrated that airway epithelial cells express eotaxin in vivo and in vitro, there are few data about its expression in viral infection. We hypothesized that eotaxin may play an important role in attracting inflammatory cells to the airways after viral infection, and analyzed whether viral infection attracts eotaxin in bronchial epithelial cells in vitro. Methods: Human airway epithelial cells obtained from bronchial tissue at lobectomy for lung cancer were infected with influenza virus A (subtype H3N2). The cells and cultured media were collected 8, 24, and 48 h after ***infection*** . Eotaxin mRNA was analyzed with reverse transcriptase-polymerase chain reaction. Eotaxin protein levels in the culture media were analyzed by enzyme-linked immunosorbent assay. We also studied a **blocking** assay to analyze the intervention of proinflammatory cytokines in its production induced by influenza ***virus*** . Results: Eotaxin mRNA appeared to be expressed constitutively in uninfected cells but was expressed more clearly in ***infected*** cells. Eotaxin protein release into culture media significantly increased after ***infection*** . Anti- ***TNF*** -alpha and

anti-IL-1beta **antibodies** did not alter the eotaxin protein levels after ***viral*** ***infection*** . Conclusions: These results suggest that influenza **virus** A **infection** in airway epithelial cells activates the expression of eotaxin and that eotaxin may participate in the pathogenesis of airway inflammatory **disease** caused by ***viral*** ***infection*** , such as ***infectious*** type asthma.

41/7/11 (Item 11 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0012309949 BIOSIS NO.: 200000028262
Dual role of TNF-alpha in NK/LAK cell-mediated lysis of chronically HIV-infected U1 cells. Concomitant enhancement of HIV expression and sensitization of cell-mediated lysis
AUTHOR: Fortis Claudio (Reprint); Biswas Priscilla; Soldini Laura; Veglia Fabrizio; Careddu Anna Maria; Delfanti Fanny; Mantelli Barbara; Murone Michelangelo; Lazzarin Adriano; Poli Guido
AUTHOR ADDRESS: Centro San Luigi, via Stamira d''Ancona n. 20, I-20127, Milano, Italy**Italy
JOURNAL: European Journal of Immunology 29 (11): p3654-3662 Nov., 1999 1999
MEDIUM: print
ISSN: 0014-2980
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The U937-derived chronically HIV-infected U1 cell line and uninfected U937 cell clones were efficiently lysed by both unstimulated (NK) and IL-2-stimulated (lymphokine-activated killer; LAK) peripheral blood mononuclear cells (PBMC) of healthy HIV-seronegative donors. Pretreatment of target cells with IFN-gamma down-modulated killing of both U1 cells and two U937 cell clones, and up-regulated MHC class I expression. In contrast, TNF-alpha enhanced the sensitivity of **infected** U1 cells, but not of U937 cell clones to NK/LAK cell lysis. Co-cultivation of IL-2-stimulated PBMC with U1 cells triggered expression and replication of HIV by cell-cell contact, and this effect was **inhibited** by anti-**TNF**-alpha **antibodies** (Ab); ***virus*** production was partially ***inhibited*** by zidovudine. Of interest, anti-TNF-alpha Ab protected U1 cells from LAK cell activity. Thus, TNF-alpha can induce HIV expression from chronically **infected** U1 cells, but also plays an important role in sensitizing these cells to lysis.

41/7/12 (Item 12 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0011328641 BIOSIS NO.: 199800122888
Plasmodium falciparum antigen-induced human immunodeficiency virus type 1 replication is mediated through induction of tumor necrosis factor-alpha
AUTHOR: Xio Lihua; Owen Sherry M; Rudolph Donna L; Lal Renu B; Lal Altaf A (Reprint)
AUTHOR ADDRESS: Immunol. Branch, Div. Parasitic Diseases, Mail Stop F-12, Centers Disease Control an Prevention, 4770 Buford Highway, Chamblee, GA 30341, USA**USA
JOURNAL: Journal of Infectious Diseases 177 (2): p437-445 Feb., 1998 1998
MEDIUM: print
ISSN: 0022-1899
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Because malaria-stimulated cytokine production may have

deleterious effects on human immunodeficiency virus type 1 (HIV-1) replication, the effects of Plasmodium falciparum antigens on HIV-1 replication were studied. Stimulation with malarial antigens significantly enhanced HIV-1 replication of HIV-1LAV and primary HIV-1 isolates (subtype A) in CD8-depleted peripheral blood mononuclear cells from naive donors. The malarial antigen-induced activation of HIV-1 was due to cellular activation as judged by the expression of cell activation markers and proliferative responses. While malarial antigen stimulation increased expression of tumor necrosis factor (TNF-alpha) and interleukin-6 (IL-6), only monoclonal **antibodies** (MAbs) to **TNF**-alpha **inhibited** malarial antigen-induced HIV-1 replication, whereas MAb to IL-6 had no effect. Malarial antigen increased HIV-1 replication by increasing **viral** mRNA expression and by activating long terminal repeat-directed ***viral*** transcription. These data suggest that P. falciparum ***infection*** can modulate HIV-1 pathogenesis by activating lymphocytes and stimulating viral replication through the production of cytokines.

41/7/13 (Item 13 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010933316 BIOSIS NO.: 199799567376
Activation of endothelial cells via antibody-enhanced dengue virus infection of peripheral blood monocytes
AUTHOR: Anderson Robert (Reprint); Wang Songli; Osiowy Carla; Issekutz Andrew C
AUTHOR ADDRESS: Dep. Microbiol. Immunol., Dalhousie Univ., Halifax, NS B3H 4H7, Canada**Canada
JOURNAL: Journal of Virology 71 (6): p4226-4232 1997 1997
ISSN: 0022-538X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Although endothelial cells have been speculated to be a target in the pathogenesis of dengue hemorrhagic fever (DHF), there has been little evidence linking dengue virus infection to any alteration in endothelial cell function. In this study, we show that human umbilical vein endothelial cells become activated when exposed to culture fluids from dengue virus-infected peripheral blood monocytes. Maximum activation was achieved with culture fluids from monocytes in which virus infection was enhanced by the addition of dengue virus-immune serum, thus correlating with epidemiological evidence that prior immunity to dengue virus is a major risk factor for DHF. Activation was strongest for endothelial cell expression of VCAM-1 and ICAM-1. In contrast, activation of endothelial cell E-selectin expression appeared to be more transient, as indicated by its detection at 3 h, but not at 16 h, of treatment. Treatment of monocyte culture fluids with anti-tumor necrosis factor alpha (**TNF** -alpha) **antibody** largely abolished the activation effect (as measured by endothelial cell expression of ICAM-1), whereas treatment with IL-1-beta receptor **antagonist** had a much smaller ***inhibitory*** effect on activation. Endothelial cells inoculated directly with dengue **virus** or with **virus**-antibody combinations were poorly **infectable** (compared to Vero cells or peripheral blood monocytes), and virus-inoculated endothelial cells showed no increased expression of VCAM-1, ICAM-1, or E-selectin. Taken together, the results strongly indicate that dengue virus can modulate endothelial cell function by an indirect route, in which a key intermediary is TNF-alpha released from virus-infected monocytes.

41/7/14 (Item 14 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010820014 BIOSIS NO.: 199799454074
Vaccinia virus serpin B1 3R (SPI-2) inhibits interleukin-1-beta-converting enzyme and protects virus- infected cells from TNF- and Fas-mediated apoptosis, but does not prevent IL-1-beta-induced fever
AUTHOR: Kettle Susan; Alcami Antonio; Khanna Anu; Ehret Robert; Jassoy Christian; Smith Geoffrey L (Reprint)
AUTHOR ADDRESS: Sir William Dunn Sch. Pathol., Univ. Oxford, South Parks Rd., Oxford OX1 3RE, UK**UK
JOURNAL: Journal of General Virology 78 (3): p677-685 1997 1997
ISSN: 0022-1317
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The vaccinia virus (VV) strain Western Reserve B13R gene encodes a 38-5 kDa intracellular polypeptide that is non-essential for virus replication in vitro and does not affect virus virulence in a murine intranasal model. The protein has 92% amino acid identity with the cowpox virus cytokine response modifier A (crmA) protein which inhibits the interleukin (IL)-1-beta converting enzyme (ICE). Here, we show that extracts from THP-1 cells infected with VV strains expressing B13R prevent the cleavage of in vitro transcribed and translated pro-IL-1-beta into mature IL-1-beta. Similarly, THP-1 cells infected with VVs expressing B13R process pro-IL-1-beta into mature IL-1-beta inefficiently in situ. Despite its inhibition of ICE, B13R does not prevent fever in infected mice, a systemic effect mediated by IL-1-beta. Instead, fever is controlled by the VV IL-1-beta receptor, encoded by gene B15R, and deletion of both the B13R and B15R genes did not increase the febrile response compared to deletion of B15R alone. The B13R protein does, however, **block** apoptosis mediated by anti-Fas **antibodies** or by tumour necrosis factor (***TNF***) and cycloheximide. Using DNA fragmentation, chromium release and microscopic analyses it was shown that cells **infected** with wild-type VV strain WR, or a revertant **virus** in which the B13R gene had been re-inserted into the B13R deletion mutant, are more resistant than uninfected cells or deletion mutant- ***infected*** cells to apoptosis mediated by antiFas and TNF.

41/7/15 (Item 15 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010613303 BIOSIS NO.: 199699247363
Tumor necrosis factor alpha inhibits entry of human immunodeficiency virus type 1 into primary human macrophages: A selective role for the 75-kilodalton receptor
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JOURNAL: Journal of Virology 70 (11): p7388-7397 1996 1996
ISSN: 0022-538X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The proinflammatory cytokine tumor necrosis factor alpha (TNF-alpha) is readily detected after human immunodeficiency virus type I (HIV-1) infection of primary macrophages in vitro and is present in plasma and tissues of patients with AIDS. Previous studies have shown that human recombinant TNF-alpha (hrTNF-alpha) enhances HIV replication in both chronically infected promonocytic and T-lymphoid cell lines in vitro. We report here that in contrast to untreated tissue culture-differentiated macrophages (TCDM), in which the proviral long terminal repeat (LTR) could be detected as soon as 8 h postinfection by a PCR assay, TCDM pretreatment for 3 days by hrTNF-alpha markedly delayed its appearance until 72 h after infection with the HIV-1 Ada monocytotropic strain. Moreover the inhibition of formation of the

proviral LTR in HIV-1-infected TCDM was directly proportional to the concentration of hrTNF-alpha used. To determine if the inhibition of LTR formation results from blockade of viral entry, we performed a reverse transcription PCR assay to detect intracellular genomic viral RNA as early as 2 h after ***infection*** . Pretreatment of primary TCDM by hrTNF-alpha for 3 days and even for only 2 h **inhibits** 75% of the ***viral*** entry into the cells. The ***inhibition*** of ***viral*** entry by hrTNF-alpha was totally abolished by the use of anti-human ***TNF*** -alpha monoclonal ***antibody*** . By using ***TNF*** -alpha mutants specific for each human TNF-alpha receptor, we showed that the **inhibition** of HIV-1 entry into TCDM was mediated not through the 55-kDa TNF receptor but through the 75-kDa TNF receptor. Although prolonged (1 to 5 days) TNF-alpha treatment can downregulate CD4 expression in primary human TCDM, surface CD4 levels were not reduced by 2 h of treatment and was therefore not a limiting step for HIV-1 entry. In contrast to the inhibition of viral entry into primary TCDM, pretreatment with hrTNF-alpha did not modify HIV-1 entry into phytohemagglutinin A-activated peripheral blood lymphocytes. TNF-alpha-pretreatment inhibited HIV-1 replication in primary TCDM but not in phytohemagglutinin A-activated peripheral blood lymphocytes as assessed by decreased reverse transcriptase activity in culture supernatants. These results demonstrate that TNF-alpha is able to enhance host cellular resistance to HIV-1 infection and that selective inhibition of HIV-1 entry into primary TCDM by TNF-alpha involves the 75-kDa TNF receptor but not the 55-kDa TNF receptor.

41/7/16 (Item 16 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010414824 BIOSIS NO.: 199699048884
Heat shock induces HIV-1 replication in chronically infected promyelocyte cell line OM10.1
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JOURNAL: Archives of Virology 141 (3-4): p439-447 1996 1996
ISSN: 0304-8608
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A long period of clinical latency before development of symptoms is characteristic of human immunodeficiency virus type 1 (HIV-1) ***infection*** . OM10.1, a promyelocyte cell line latently ***infected*** with HIV-1, has been developed as a model for studying the mechanism of viral latency and the activation of ***virus*** expression. We found that this latently **infected** cell line with heat shock at 42 degree C for 2 h resulted in a high level of HIV-1 production without addition of any cytokines. The mechanism of activation was analyzed by using anti- ***TNF*** -alpha ***antibody*** and various ***inhibitors*** . Although the **TNF**-alpha level in culture supernatants was below the sensitivity of an ELISA assay system, addition of antiTNF-alpha antibody in culture medium could partially suppress the heat shock induced HIV-1 production. Staurosporine (PKC inhibitor), pentoxifylline (NF-kappa-B inhibitor), and Ro5-3335 (HIV-1 Tat inhibitor) also inhibited significantly the heat shock induced virus activation. In particular, staurosporine achieved approximately 90% inhibition of the HIV-1 antigen expression in heat shock-treated OM10.1 at a non-toxic concentration. Although the mechanism of HIV-1 activation with heat shock has not been fully elucidated yet, it is presumed PKC plays an important role in HIV-1 activation. Thus, the present observations will provide a further insight into the pathogenesis of HIV-1 infections.

41/7/17 (Item 17 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

0010373704 BIOSIS NO.: 199699007764
Protective role of TNF-alpha in respiratory syncytial virus infection in vitro and in vivo
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JOURNAL: American Journal of the Medical Sciences 311 (5): p201-204 1996 1996
ISSN: 0002-9629
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Respiratory syncytial virus (RSV) **infection** causes substantial morbidity in young children and immunocompromised adults, yet its pathogenesis is poorly understood. Because the proinflammatory cytokine tumor necrosis factor-alpha (TNF-alpha) may be important in host response to **viral infection**, HEp-2 cells were treated with TNF-alpha and mice were given **TNF**-alpha **antibody** before RSV ***infection*** . Pretreatment of HEp-2 cells with TNF-alpha ***inhibited*** RSV replication as determined by cytopathic effect. Respiratory syncytial **virus-infected** BALB/c mice treated with **antibody** to **TNF**-alpha had greater maximal weight loss and slower recovery time than control mice. These results suggest a protective role for TNF-alpha in RSV ***infection*** .

41/7/18 (Item 18 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0010313249 BIOSIS NO.: 199698781082
Immunomodulating agents for the management of heart failure with myocarditis and cardiomyopathy-lessons from animal experiments
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JOURNAL: European Heart Journal 16 (SUPPL. 0): p140-143 1995 1995
ISSN: 0195-668X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We have developed murine models of viral myocarditis induced by the encephalomyocarditis (EMC) virus in which there is a high incidence of severe myocarditis, congestive heart failure and dilated cardiomyopathy. From these models, we have learned of their natural history and pathogenesis and assessed new diagnostic methods and therapeutic and preventive interventions. Our recent studies showed that increased circulating cytokines have been detected in patients with acute myocarditis and cardiomyopathy and suggest that cytokines may play some role in the pathogenesis of myocardial injury in these ***diseases*** . In our animal model of EMC **virus** myocarditis, plasma tumour necrosis factor-(TNF)-alpha was elevated in the acute stage and exogenously administered anti-**TNF**-alpha **antibody** improved survival and reduced the myocardial lesion, suggesting the importance of TNF-alpha in the pathogenesis. A recently developed positive inotropic agent, vesnarinone, was effective in the treatment of EMC **virus** myocarditis by its immunomodulating effects such as **inhibition** of production of TNF-alpha. The plasma angiotensin II level was increased in EMC virus myocarditis, and a new angiotensin H type 1 antagonist, TCV-116, prevented development of myocarditis.

41/7/19 (Item 19 from file: 5)

0010309878 BIOSIS NO.: 199698777711
Filovirus-induced endothelial leakage triggered by infected monocytes/macrophages
AUTHOR: Feldmann Heinz; Bugany Harald; Mahner Friederike; Klenk Hans-Dieter ; Drenckhahn Detley; Schnittler Hans -Joachim (Reprint)
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JOURNAL: Journal of Virology 70 (4): p2208-2214 1996 1996
ISSN: 0022-538X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The pathogenetic mechanisms underlying viral hemorrhagic fevers are not fully understood, but hemorrhage, activation of coagulation, and shock suggest vascular instability. Here, we demonstrate that Marburg virus (MBG), a filovirus causing a severe form of hemorrhagic fever in humans, replicates in human monocytes/macrophages, resulting in cytolytic infection and release of infectious virus particles. Replication also led to intracellular budding and accumulation of viral particles in vacuoles, thus providing a mechanism by which the virus may escape immune surveillance. Monocytes/macrophages were activated by MBG infection as indicated by tumor necrosis factor alpha (TNF-alpha) release. Supernatants of monocyte/macrophage cultures **infected** with MBG increased the permeability of cultured human endothelial cell monolayers. The increase in endothelial permeability correlated with the time course of TNF-alpha release and was **inhibited** by a **TNF** -alpha-specific monoclonal ***antibody*** . Furthermore, recombinant **TNF**-alpha added at concentrations present in supernatants of **virus-infected** macrophage cultures increased endothelial permeability in the presence of 10 mu-M H-20-2. These results indicate that TNF-alpha plays a critical role in mediating increased permeability, which was identified as a paraendothelial route shown by formation of interendothelial gaps. The combination of viral replication in endothelial cells (H.-J. Schnittler, F. Mahner, D. Drenckhahn, H.-D. Klenk, and H. Feldmann, J. Clin. Invest. 19:1301-1309, 1993) and monocytes/macrophages and the permeability-increasing effect of virus-induced cytokine release provide the first experimental data for a novel concept in the pathogenesis of viral hemorrhagic fever.

41/7/20 (Item 20 from file: 5)

0009940791 BIOSIS NO.: 199598408624
Production of lipopolysaccharide-induced tumor necrosis factor during influenza virus infection in mice coincides with viral replication and respiratory oxidative burst
AUTHOR: Masihi K N (Reprint); Hintelmann H; Madaj K; Gast G
AUTHOR ADDRESS: Robert Koch Inst., Nordufer 20, 13353 Berlin, Germany** Germany
JOURNAL: Mediators of Inflammation 4 (3): p181-185 1995 1995
ISSN: 0962-9351
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Increased morbidity and mortality occur regularly during influenza epidemics. The exact mechanisms involved are not well defined but bacterial superinfection of influenza virus infected patients is considered to play an important role. in the present study, the effect of influenza virus infection on in vivo production of tumour necrosis factor (TNF) in response to bacterial stimuli was investigated. Release of TNF

in mice infected by an aerosol of influenza virus was significant after administration of bacterial lipopolysaccharide (LPS) at 72 h, whereas administration of homologous influenza virus produced only modest amounts of TNF at 96 h. Significant production of TNF was observed 48 h after intravenous administration of **infectious** influenza in response to LPS but not with the homologous ***virus*** . TNF induced after influenza **virus infection** could be **blocked** by a specific murine anti- ***TNF*** monoclonal ***antibody*** . Higher ***TNF*** production following aerosol influenza **infection** correlated with peak titres of influenza **virus** in the lungs of **infected** mice and with enhanced generation of luminoldependent chemiluminescence.

41/7/21 (Item 21 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009754374 BIOSIS NO.: 199598222207
In vitro evidence for a dual role of tumor necrosis factor-alpha in human immunodeficiency virus type 1 encephalopathy
AUTHOR: Wilt Susan G; Milward Elizabeth; Zhou Jia Min; Nagasato Kunihiko; Patton Heather; Rusten Ray; Griffin Diane E; O'Connor Michael; Dubois-Dalcq Monique (Reprint)
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JOURNAL: Annals of Neurology 37 (3): p381-394 1995 1995
ISSN: 0364-5134
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Microglial cell activation, myelin alteration, and abundant tumor necrosis factor (TNF)-alpha message have been observed in the brains of some human immunodeficiency virus type 1 (HIV-1)-infected and demented patients. We therefore used cultures of purified human microglia and oligodendrocytes derived from adult human brain to examine the role of TNF-alpha in HIV-1 encephalopathy. Human microglia synthesize TNF-alpha message and protein in vitro. When these cells were ***infected*** with HIV-1 JrFL and maintained in the presence of **TNF**-alpha **antibodies**, soluble **TNF**-alpha receptors, or the TNF-alpha **inhibitor** pentoxifylline, **viral** replication was delayed or strongly ***inhibited*** . Both human microglia and oligodendrocytes express the two TNF receptors, TNF-R1, which has been implicated in cytotoxicity, and TNF-R2. While TNF-alpha may enhance HIV-1 replication in an autocrine manner, it is not toxic for microglia. In contrast, recombinant human TNF-alpha causes oligodendrocyte death in a dose-dependent manner. In situ detection of DNA fragmentation in some cells indicated that oligodendrocyte death may occur by apoptosis. Addition of live microglia or medium conditioned by these cells also resulted in 30 to 40% oligodendrocyte death, which was largely prevented by TNF-alpha inhibitors. We propose that TNF-alpha plays a dual role in HIV-1 encephalopathy, enhancing viral replication by activated microglia and damaging oligodendrocytes. Thus, TNF-alpha inhibitors may alleviate some of the neurological manifestations of acquired immunodeficiency syndrome.

41/7/22 (Item 22 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009267653 BIOSIS NO.: 199497288938
Priming effect of morphine on the production of tumor necrosis factor-alpha by microglia: Implications in respiratory burst activity and human immunodeficiency virus-1 expression
AUTHOR: Chao Chun C (Reprint); Gekker Genya; Sheng Wen S; Hu Huxian; Tsang Monica; Peterson Phillip K

AUTHOR ADDRESS: Minn. Med. Res. Foundation, 914 S. 8th St., D-3, Minneapolis, MN 55404, USA**USA
JOURNAL: Journal of Pharmacology and Experimental Therapeutics 269 (1): p 198-203 1994 1994
ISSN: 0022-3565
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Opiates alter a variety of functional activities of the somatic immune system; within the central nervous system, however, their effects on immune responses are unknown. In the present study, we investigated the effect of morphine on the release of tumor necrosis factor (TNF)-alpha from murine neonatal microglia. Microglial cell cultures did not release TNF-alpha when incubated with morphine alone; however, an enhanced (P lt .01) release of TNF-alpha was observed when cultures were first primed with morphine for 24 h and then stimulated with lipopolysaccharide. A bell-shaped dose-response curve was observed for the priming effect of morphine; maximal enhancement of TNF-alpha release (310 +- 15% of control) was detected at a concentration of 10-10 M morphine. Pretreatment of microglia for 30 min with opioid receptor antagonists (i.e. naloxone and beta-funaltrexamine) completely ***blocked*** the priming effect of morphine. In addition, morphine treatment amplified (P lt .01) the priming effect of lipopolysaccharide on phorbol myristate acetate-triggered superoxide anion production by microglial cell cultures, and this effect was abrogated (P lt .01) by anti- ***TNF*** -alpha ***antibody*** . Furthermore, culture supernatants derived from microglial cell cultures that had been treated with morphine before stimulation with lipopolysaccharide had an increased capacity to upregulate human immunodeficiency **virus**-1 expression in the latently ***infected*** promonocytic clone U1. This effect was also ***blocked*** by anti- ***TNF*** -alpha ***antibody*** . These findings suggest that morphine primes microglia for enhanced production of TNF-alpha which could alter several functional activities of these cells within the brain.

41/7/23 (Item 23 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009264809 BIOSIS NO.: 199497286094
The role of tumor necrosis factor-alpha in acute murine cytomegalovirus infection in BALB/c mice
AUTHOR: Shanley John D (Reprint); Goff Elizabeth; Debs Robert J; Forman Stephen J
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JOURNAL: Journal of Infectious Diseases 169 (5): p1088-1091 1994 1994
ISSN: 0022-1899
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: The role of tumor necrosis factor-alpha (TNF-alpha) in acute lethal and sublethal murine cytomegalovirus (MCMV) infection in BALB/c mice was examined. During the course of acute ***infection*** , TNF-alpha was not detectable in the serum or bronchoalveolar lavage (BAL) fluids, while TNF-alpha was uniformly detected in both serum and BAL following intravenous administration of lipopolysaccharide (LPS). Administration of recombinant murine (rMu) TNF-alpha did not consistently alter the ***virus*** content of tissues during acute ***infection*** . Passive transfer of purified polyclonal immunoglobulin containing neutralizing **antibody** to **TNF**-alpha did not alter mortality or MCMV replication in tissues during acute **infection** but did **block** the TNF-alpha response when LPS was administered to BALB/c mice. Thus, TNF-alpha appears to play little role in the course and outcome of acute

MCMV infection.

41/7/24 (Item 24 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009219393 BIOSIS NO.: 199497240678
Involvement of the sphingomyelin pathway in autocrine tumor necrosis factor signaling for human immunodeficiency virus production in chronically infected HL-60 cells
AUTHOR: Rivas Coralia I (Reprint); Golde David W; Vera Juan Carlos; Kolesnick Richard N
AUTHOR ADDRESS: Program Mol. Pharmacol. Therapeutics, Meml. Sloan-Kettering Cancer Cent., 1275 York Ave., New York, NY 10021, USA**USA
JOURNAL: Blood 83 (8): p2191-2197 1994 1994
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Tumor necrosis factor (TNF) is a potent inducer of human immunodeficiency virus (HIV) proviral transcription and subsequent mature virus production. Recent investigations have shown that TNF can use a signal transduction pathway in HL-60 cells involving sphingomyelin hydrolysis to caremide with subsequent stimulation of a ceramide-linked kinase. When sphingomyelinase was added exogenously to activate this cascade in HIV-1 -**infected** HL-60 cells, it mimicked TNF-induced HIV production. Phospholipases A-2, C, or D, which do not generate ceramide, had no effect; however, a synthetic ceramide analog added exogenously potently induced HIV production. In addition, anti- ***TNF*** **antibodies blocked** much of the effect of both sphingomyelinase and the synthetic ceramide analog on **virus** expression, suggesting that, although signaling is initiated through the sphingomyelin pathway, it is sustained by autocrine TNF synthesis. Thus, direct activation of the sphingomyelin pathway recapitulated the effect of TNF on both HIV and TNF production. These studies indicate that the sphingomyelin pathway is involved in TNF signaling for HIV production in chronically infected myeloid cells.

41/7/25 (Item 25 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009219278 BIOSIS NO.: 199497240563
Enhancement of HIV-1 replication in peripheral blood mononuclear cells by Cryptococcus neoformans in monocyte-dependent but tumour necrosis factor-independent
AUTHOR: Orendi Jurgen M (Reprint); Nottet Hans S L M; Visser Maarten R; Verheul Andre F M; Snippe Harm; Verhoef Jan
AUTHOR ADDRESS: Dep. Clin. Microbiol., Eijkman-Winkler Inst. Med. Microbiol., Univ. Hosp. Utrecht, Room GO4.1 515, Heidelberglaan 100, 3584 CX Utrecht, Netherlands**Netherlands
JOURNAL: AIDS (Philadelphia) 8 (4): p423-429 1994 1994
ISSN: 0269-9370
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Objective: To investigate the possible role of Cryptococcus neoformans in HIV-1 pathogenesis. Design: An in vitro system was developed to study HIV-1 replication in freshly HIV-1-**infected** peripheral blood mononuclear cells (PBMC) incubated with whole azide-killed C. neoformans. Methods: Human PBMC or peripheral blood lymphocytes were **infected** with lymphocytotropic HIV-1 and incubated with azide-killed encapsulated or non-encapsulated C. neoformans for 10

days. ***Viral*** replication was followed by HIV-1 p24 enzyme-linked immunosorbent assay and median tissue culture **infective** dose determination. Tumour necrosis factor (TNF) release by PBMC, induced by C. neoformans, was measured. Anti- ***TNF*** monoclonal ***antibodies*** or pentoxifylline were used to ***inhibit*** TNF bioactivity. Results: Both encapsulated and non-encapsulated C. neoformans enhanced HIV-1 replication in PBMC but not in peripheral blood lymphocytes. C. neoformans induced TNF release by PBMC. Inhibition of TNF bioactivity did not block C. neoformans-enhanced HIV-1 replication in PBMC. Conclusions: C. neoformans can enhance HIV-1 replication in T cells only in the presence of monocytic cells. This enhancement is not dependent on encapsulation nor can it be attributed to TNF release.

41/7/26 (Item 26 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009169827 BIOSIS NO.: 199497191112
Tumor necrosis factor alpha promotes replication and pathogenicity of rat cytomegalovirus
AUTHOR: Haagmans Bart L; Stals Frans S; Van Der Meide Peter H; Bruggeman Cathrien A; Horzinek Marian C; Schijns Virgil E C J (Reprint)
AUTHOR ADDRESS: Virol. Div., Dep. Infectious Diseases Immunol., Vet. Fac., Univ. Utrecht, Yalelaan 1, 3584 CL Utrecht, Netherlands**Netherlands
JOURNAL: Journal of Virology 68 (4): p2297-2304 1994 1994
ISSN: 0022-538X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: We investigated the role of tumor necrosis factor alpha (TNF-alpha) in the pathogenesis of rat cytomegalovirus (RCMV) ***infection*** . TNF-alpha levels found in the sera of radiation-immunosuppressed rats in the course of **infection** (gt 350 pg/ml) correlated with the development of RCMV ***disease*** . Administration of anti-**TNF**-alpha **antibodies** strongly reduced the severity of pneumonia and led to a reduction in ***virus*** titers. In immunocompetent rats, anti-**TNF**-alpha **antibodies** also significantly ***suppressed*** ***viral*** replication. Conversely, administration of TNF-alpha augmented RCMV replication and aggravated the ***disease*** signs. In vitro, TNF-alpha enhanced RCMV replication in the macrophage, whereas a reduction of **viral** replication was observed in fibroblasts, indicating that the effect on viral replication is cell type specific. Besides activation of viral replication and exacerbation of RCMV **disease**, TNF-alpha also favored lymphoid and hematopoietic tissue reconstitution after irradiation, which may contribute to antiviral resistance and survival. This finding demonstrates the protean nature of TNF-alpha, with both beneficial and adverse effects for the host. Our results suggest that TNF-alpha plays an important role in modulating the pathogenesis of RCMV infection.

41/7/27 (Item 27 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009119286 BIOSIS NO.: 199497140571
Effect of cytokines on HIV replication in CD4+ lymphocytes: Lack of identity with the CB8+ cell antiviral factor
AUTHOR: Mackewicz Carl E; Ortega Henry; Levy Jay A
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JOURNAL: Cellular Immunology 153 (2): p329-343 1994 1994
ISSN: 0008-8749
DOCUMENT TYPE: Article
RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: CD8+ cells from HIV replication in cultured CD4+ cells by a nonlytic, non-MHC-restricted mechanism. The ability appears to be mediated in part by a soluble antiviral factor (CAF) secreted by the CD8+ cells. In an attempt to identify this factor a large panel of recombinant cytokines was examined for their effect on HIV replication in CD+ cells. In adddition to interferon-alpha and -beta, TNF-alpha, TGF-beta, and IL-8 reduced ***virus*** replication in a dose-dependent fashion. In somes cases, the effect of the cytokine was also dependent on the HIV ***infection*** assay used to measure it. Antibodies against **inhibitory** cytokines, as well as **antibodies** against **TNF** -beta, IFN-alpha, IFN-beta, IL-4, and IL-6 did not inactivate the antiviral effect of CAF. The data suggest that CAF does not identify with known antiviral cytokines and therefore CAF may be a novel antiviral factor.

41/7/28 (Item 28 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009102073 BIOSIS NO.: 199497123358
An ovalbumin peptide-specific cytotoxic T cell clone with antigen self-presentation capacity uses two distinct mechanisms to kill target cells
AUTHOR: Dick Thgomas (Reprint); Reichmann Gabi (Reprint); Ebnet Klaus; Simon Markus M; Dienes Hans-Peter; Echternacher Bernd; Krammer Peter H; Reske-Kunz Angelika B (Reprint)
AUTHOR ADDRESS: Inst. Immunologie, Johannes Gothenburg Univ., D-6500 Mainz, Germany**Germany
JOURNAL: Cellular Immunology 152 (2): p333-347 1993 1993
ISSN: 0008-8749
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Cloned 10BK.1 T cells with specificity for the ovalbumin peptide OVA257-264 are representative of a novel cell type within the CD8+ subset of T cells. In the presence and in the absence of added antigen presenting cells these T cells react toward antigen (Ag) by proliferation and lymphokine production. these data suggest self-presentation of the Ag by 10BK.1 cells. Here we present evidence that 10BK.1 cells exhibit cytotoxic activity that involves two different cytotoxic effector mechanisms. (i) One mechanism is fast killing activity, apparent within 4 hr. Constitutive mouse T cell-specific proteinase-1 (MTSP-1) activity, constitutive expression of MTSP-1 RNA, increased by Ag challenge, and Ag-inducible perforin RNA expression were observed. Electron microscopic dense granules of the CTL were oriented toward Ag-pulsed target cells. The fast form of cytotoxicity was triggered by Ag recognition and by contact with IL-2 (ii) The other mechanism is slow cytolytic activity, manifested within 2 days. This activity was contained in the supernatant of 10BK.1 cells after Ag activation. It was ***inhibited*** by monoclonal anti-**TNF antibodies** and therefore presumably represents ***TNF*** -alpha/beta. Cytotoxic T cells capable of antigen self-presentation may be responsible for tissue damage during bacterial and ***viral*** ***infections*** .

41/7/29 (Item 29 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0009011476 BIOSIS NO.: 199497032761
Tumor necrosis factor-dependent production of human immunodeficiency virus I in chronically infected HL-60 cells
AUTHOR: Kitano Kiyoshi; Rivas Coralia I; Baldwin Gayle Cocita; Vera Juan

Carlos; Golde David W (Reprint)
AUTHOR ADDRESS: Div. Hematol. Oncol., Lab. Mol. and Cell. Hematol., Meml. Sloan-Kettering Cancer Cent., 1275 York Ave., New York 10021, USA**USA
JOURNAL: Blood 82 (9): p2742-2748 1993 1993
ISSN: 0006-4971
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Tumor necrosis factor (TNF) may play a central role in Proviral activation and release from latency in cells infected with the human immunodeficiency virus (HIV). We studied viral production and its relation to TNF in a HL-60 cell line (J-22-HL-60) **infected** with a monocytotropic strain of HIV-1-JR-FL. Viral production was stimulated to similar levels by TNF, 12-O-tetradecanoyl-phorbol-13-acetate (TPA), and 1,25-dihydroxyvitamin D-3 (1,25(OH)-2D-3). Production of the virus was not suppressed by 3'-azido-3'-deoxythymidine (AZT), indicating that viral production was not caused by superinfection. Low concentrations of TN F (0.1 ng/mL) induced ***viral*** production with a short lag period of 8 hours, and this proviral activation was specifically suppressed by anti-***TNF*** ***antibodies*** . However, induction of ***virus*** production by 1,25(OH)-2D-3 showed an extended lag period of 2 to 3 days. The effect of 1,25(OH)-2D-3 on **virus** production was also blocked by anti-**TNF antibodies**, which suggests the direct participation of TNF in this process. TNF accumulated in the culture supernatant of cells stimulated with 1,25(OH)-2D-3 with a kinetics consistent with its involvement in the action of 1,25(OH)-2D-3 on ***viral*** production. The J-22-HL-60 cell line produced low levels of **virus** when cultured in the absence of an external stimulus; however, this basal **viral** production was **suppressed** greater than 80% in the presence of anti-***TNF*** ***antibodies*** . Corresponding low levels of ***TNF*** were detected in the culture supernatants. ***Viral*** production decreased slowly with increasing passage of the cells, and no **virus** was detected in the supernatants of cells maintained in culture for several months. Concomitantly, TNF was no longer detected in the supernatant of these cells, which suggests that endogenous autocrine production of TNF drives viral production in the unstimulated cells. However, viral production was stimulated in these cells by low concentrations (0.1 ng/mL) of added TNF. These results argue for a central role for TNF in HIV proviral activation in chronically infected myeloid cells.

41/7/30 (Item 30 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008912520 BIOSIS NO.: 199396076936
Induction of HIV-1 replication in a chronically infected T-cell line by cytotoxic T lymphocytes
AUTHOR: Harrer Thomas (Reprint); Jassoy Christian; Harrer Ellen; Johnson R Paul; Walker Bruce D
AUTHOR ADDRESS: Infectious Disease Unit, Massachussetts General Hosp., Fruit St., Boston, MA 02114, USA**USA
JOURNAL: Journal of Acquired Immune Deficiency Syndromes 6 (8): p865-871 1993
ISSN: 0894-9255
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: CD8-positive cytotoxic T cells (CTLs) are activated by recognition of peptide bound to MHC class I molecules ontarget cells. This human leukocyte antigen-restricted process induces not only lysis of target cells but also secretion of lymphokines by the CTLs, including TNF-alpha, TNF-beta, and IFN-gamma. In this study we show that activation of HIV-1-specific CTL clones by their cognate peptide epitopes induces HIV-1 replication in the chronically HIV-1-**infected** T-cell line

ACH-2. The HIV-1-inducing activity correlates with increased levels of TNF-alpha produced by these CTLs, and can be **inhibited** by anti-**TNF**-alpha **antibodies**, indicating that the effect is mediated by this cytokine. These studies suggest that activation of CTL in vivo could lead to enhanced ***viral*** replication. Although HIV-1-specific CTLs may serve as a host defense to **inhibit virus** replication, the induction of TNF-alpha production by these cells may facilitate viral replication in **infected** bystander cells, contributing to viral persistence and ***disease*** pathogenesis.

41/7/31 (Item 31 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008761231 BIOSIS NO.: 199395063497
Differential effect in vitro of tumor necrosis factor-alpha (TNF) on normal and virus-infected erythroid progenitors from Friend virus (FVA)-infected mice
AUTHOR: Chang Ming-Jei; Pourbohloul S Camilla; Yu Wei-Dong; Furmanski Philip; Johnson Candace S (Reprint)
AUTHOR ADDRESS: Dep. Otolaryngology, Univ. Pittsburgh Sch. Med., 203 Lothrop Street, Room 110, Pittsburgh, Pa. 15213, USA**USA
JOURNAL: Experimental Hematology (Charlottesville) 20 (11): p1271-1277 1992
ISSN: 0301-472X
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: In vivo administration of tumor necrosis factor-alpha (TNF) **suppresses** both normal and Friend virus (FVA)-**infected** erythroid progenitor cells (CFU-E). To examine the mechanism of erythroid **suppression** by TNF, we examined TNF's direct effect on normal and virus- ***infected*** cells in vitro. Productively ***infected*** fibroblast cell lines, fresh acute **virus-infected** spleen cells, and **virus-infected** CFU-E were sensitive, whereas uninfected CFU-E were resistant to TNF cytotoxicity in vitro. When FVA-**infected** erythroblasts were depleted from the spleen cell population vitro with antivirus **antibodies, TNF** ***suppression*** of the remaining (uninfected) cells was abrogated. In contrast, both normal and voris-**infected** macrophage progenitor cells and immature erythroid progenitor cells were equally sensitive to TNF cytotoxicity in vitro. Normal erythroblasts had significantly fewer TNF receptors than FVA-infected erythroblasts, which also were morphologically less mature. These results suggest that TNF can differentially suppress late-stage virus-infected erythroid progenitors in vitro.

41/7/32 (Item 32 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0008760374 BIOSIS NO.: 199395062640
Microglial cell upregulation of HIV-1 expression in the chronically infected promonocytic cell line U1: The role of tumor necrosis factor-alpha
AUTHOR: Peterson Phillip K (Reprint); Gekker Genya; Hu Shuxian; Schoolov Yuri; Balfour Henry H Jr; Chao Chun C
AUTHOR ADDRESS: Dep. Med., Hennepin County Med. Center, 701 Park Ave., Minneapolis, Minn. 55415, USA**USA
JOURNAL: Journal of Neuroimmunology 41 (1): p81-87 1992
ISSN: 0165-5728
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Culture supernatants from lipopolysaccharide (LPS)-treated murine microglial cells were found to markedly induce the expression of human immunodeficiency **virus** (HIV)-1 in the chronically **infected** human promonocytic cell line U1 as detected by measurements of HIV-1 p24 antigen release into U1 culture supernatants. ***Antibody*** to tumor necrosis factor (**TNF**)-alpha had an **inhibitory** effect on the induction of ***virus*** by microglial cell supernatants. Also, treatment of microglia with pentoxifylline, an **inhibitor** of TNF-alpha production, resulted in **suppressed** amounts of TNF in the supernatants of LPS-treated microglia and in a reduced stimulatory capacity of these supernatants on HIV-1 expression in U1 cells. These findings support the concept that TNF-alpha production by glial cells plays a pathogenetic role in HIV-1-associated brain disease by promoting the expression of the virus in infected cells.

41/7/33 (Item 33 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007814426 BIOSIS NO.: 199192060197
EFFECTS OF TUMOR NECROSIS FACTOR ALPHA ON REPLICATION OF VARICELLA-ZOSTER VIRUS
AUTHOR: ITO M (Reprint); NAKANO T; KAMIYA T; KITAMURA K; IHARA T; KAMIYA H; SAKURAI M
AUTHOR ADDRESS: DEP PEDIATRICS, MIE UNIV SCH MED, 174 EDOBASHI, TSU, MIE 514, JPN**JAPAN
JOURNAL: Antiviral Research 15 (3): p183-192 1991
ISSN: 0166-3542
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Replication of varicella-zoster **virus** (VZV) and expression of VZV nuclear antigen are **inhibited** in human embryonic lung fibroblast (HEL) cells pretreated with recombinant tumor necrosis factor (TNF) α for 24 h. This antivirual activity is completely **blocked** by the addition of monoclonal **antibodies** against ***TNF*** . ***TNF*** acts synergistically with interferons α and γ. When TNF is added to HEL cells after VZV adsorption, ***virus*** replication is still ***inhibited*** . When VZV- ***infected*** HEL cells are co-cultured with HEL cells which have been pretreated with TNF or grown in the presence of TNF, spread of VZV from VZV-**infected** HEL cells to uninfected cells is unaffected. No interferon is detected in the supernatants or cell lysates of HEL cells cultured with TNF and antibodies to α-, β- and γ-interferon have no effect on the antiviral action of TNF.

41/7/34 (Item 34 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0007153446 BIOSIS NO.: 199089071337
TUMOR NECROSIS FACTOR ALPHA FUNCTIONS IN AN AUTOCRINE MANNER IN THE INDUCTION OF HUMAN IMMUNODEFICIENCY VIRUS EXPRESSION
AUTHOR: POLI G (Reprint); KINTER A; JUSTEMENT J S; KEHRL J H; BRESSLER P; STANLEY S; FAUCI A S
AUTHOR ADDRESS: LAB IMMUNOREGULATION, NATL INST ALLERGY INFECTIOUS DIS, NATIOL INST HEALTH, BETHESDA, MD 20892, USA**USA
JOURNAL: Proceedings of the National Academy of Sciences of the United States of America 87 (2): p782-785 1990
ISSN: 0027-8424
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: Tumor necrosis factor α (TNF-α) is an immunoregulatory cytokine capable of inducing viral expression in cell chronically infected with the human immunodeficiency virus (HIV), such as the promonocytic line U1 and the T-lymphocytic line ACH-2. In the present study, we demonstrate an autocrine mechanism of TNF-α-mediated HIV induction. Stimulation of U1 and ACH-2 cells with phorbol 12-myristate 13-acetate (PMA) resulted in the induction of TNF-α mRNA and the secretion of TNF-α. Of note is the fact that anti- ***TNF*** -α **antibodies** significantly **suppressed** the expression of HIV in PMA-stimulated U1 and ACH-2 cells. Furthermore, anti- ***TNF*** -α **antibodies** also **suppressed** both the constitutive and inducible levels of **viral** expression in the chronically ***infected*** promonocytic clone U33.3. This study illustrates the interrelationship between the regulation of HIV expression and normal immunoregulatory mechanisms in that **virus** expression, both constitutive and induced, can be modulated by an autocrine pathway involving TNF-α, a cytokine involved in the complex network of regulation of the normal human immune response.

41/7/35 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

13545764 EMBASE No: 2006017800
West Nile virus meningoencephalitis and acute flaccid paralysis after infliximab treatment
Chan-Tack K.M.; Forrest G.
Dr. K.M. Chan-Tack, Institute of Human Virology, UMB1, University of Maryland, 725 West Lombard Street, Baltimore, MD 21201 United States
AUTHOR EMAIL: kchan@medicine.umaryland.edu
Journal of Rheumatology (J. RHEUMATOL.) (Canada) 2006, 33/1 (191-192)
CODEN: JRHUA ISSN: 0315-162X
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 19

West Nile virus (WNV) can cause severe central nervous system (CNS) illnesses including meningoencephalitis (MNE) and acute flaccid paralysis (AFP). Risk factors include advanced age, immunosuppression, cancer, and diabetes. In vitro studies show that tumor necrosis factor (TNF) has anti-WNV activity and is protective against WNV ***infection*** . Anti-**TNF**-alpha monoclonal **antibodies** may increase susceptibility to WNV by **inhibiting** an adequate TNF-alpha response, leading to prolonged viremia, **viral** penetration into the CNS, and fulminant WNV-CNS ***disease*** . We describe a fatal case of WNV with MNE and AFP after infliximab therapy. During WNV outbreaks, clinicians should encourage patients receiving anti-TNF-alpha drugs to take appropriate preventive measures because of the risk of severe WNV-CNS disease.

41/7/36 (Item 2 from file: 73)
DIALOG(R)File 73:EMBASE

13215948 EMBASE No: 2005282579
Effect of anti-TNF-alpha monoclonal antibody on viral myocarditis in mice
Zhang M.; Huang X.-Y.; Mai G.-R.; Liu X.-L.
M. Zhang, Department of Pediatrics, People's Hospital, Wuhan University, Wuhan 430060 China
AUTHOR EMAIL: zm7562@163.com
Chinese Journal of Contemporary Pediatrics (CHIN. J. CONTEMP. PEDIATR.) (China) 2005, 7/3 (249-252)
ISSN: 1008-8830
DOCUMENT TYPE: Journal ; Article
LANGUAGE: CHINESE SUMMARY LANGUAGE: CHINESE; ENGLISH

NUMBER OF REFERENCES: 7

Objective: This study was aimed to investigate the expressions of ICAM-1 and TNF-alpha in viral myocarditis and the effect of anti-TNF-alpha monoclonal antibody on viral myocarditis in mice. Methods: Sixty-six male Balb/c mice were randomly assigned into an Infection group (n = 30), an Intervention group (n = 18) and a Normal control group (n = 18). The Infection and Intervention groups were inoculated intraperitoneally with 0.2 mL, TCID50 10SUP-6/mL coxsackie BSUB3 (CVBSUB3) solution. Anti-TNF-amAb [0.1 ml/(kg. d)] was additionally administered starting at 1 day before CVBSUB3 virus inoculation until day 5 in the Intervention group. On the 7th and 14th days after virus inoculation, the changes of histopathology and ultrastructure of myocardium were studied with light and electron microscopy. The expressions of ICAM-1 and TNF-alpha were detected by immunohistochemical method. Results: Myocardium histopathology of mice in the Normal control group was normal. Myocardial necrosis and cellular infiltration were more prominent in the Infection group than in the Intervention group. ICAM-1 and TNF-alpha were expressed in the myocardium of Normal control group at a very low level, which were significantly lower than those in the Infection and Intervention groups. The expressions of ICAM-1 and TNF-alpha were dramatically reduced in the Intervention group compared with those in the Infection group. In the Infection group, a positive correlation was found between the expressions of ICAM-1 and TNF-alpha ($r = 0.706$, $P < 0.05$); and both ICAM-1 expression and TNF-alpha expression were positively related to **pathological** scores of myocardium ($r = 0.737$, $P < 0.05$; $r = 0.693$, $P < 0.05$). Conclusions: ICAM-1 and TNF-alpha may play important roles in the pathogenesis of **viral** myocarditis. Anti- ***TNF*** -alpha monoclonal ***antibody*** has protective effects on myocardial tissues by **inhibiting** the ICAM-1 and TNF-alpha expression.

41/7/37 (Item 3 from file: 73)
DIALOG(R)File 73:EMBASE

11449144 EMBASE No: 2002020854
vFLIP protects PC-12 cells from apoptosis induced by Sindbis virus: Implications for the role of TNF-alpha
Sarid R.; Ben-Moshe T.; Kazimirsky G.; Weisberg S.; Appel E.; Kobiler D.; Lustig S.; Brodie C.
C. Brodie, Faculty of Life Sciences, Bar-Ilan University, Ramat-Gan 52900 Israel
AUTHOR EMAIL: chaya@mail.biu.ac.il
Cell Death and Differentiation (CELL DEATH DIFFER.) (United Kingdom) 2001, 8/12 (1224-1231)
CODEN: CDDIE ISSN: 1350-9047
DOCUMENT TYPE: Journal ; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 42

Sindbis virus (SV) is an alphavirus used as a model for studying the pathogenesis of viral encephalitis. In this study we examined the effects and the mechanisms involved in the apoptosis induced by SV in PC-12 cells, and the role of a vFLIP in this process. ***Infection*** of PC-12 cells with a neurovirulent strain of SV, SVNI, induced cell apoptosis. Overexpression of vFLIP encoded by the HHV-8 or treatment with a caspase-8 ***inhibitor*** ***inhibited*** cell apoptosis. SVNI induced an increase in the expression of tumor necrosis factor alpha (TNF-alpha), and pre-treatment of the cells with an anti-**TNF**-alpha **blocking antibody** or with soluble **TNF**-alpha receptor abrogated the apoptotic effect of SVNI. Moreover, TNF-alphaR1 knockout mice were more resistant to the cytopathic effects of the **virus** as compared to control animals. Our results indicate that the apoptosis induced by SVNI is mediated by activation of caspase-8, and that TNF-alpha plays an important role in the apoptotic response.

41/7/38 (Item 4 from file: 73)
DIALOG(R)File 73:EMBASE

06898827 EMBASE No: 1997183213
Interactions between bronchial epithelial cells and extracellular matrix proteins
Ito H.; Yamauchi K.; Inoue H.
Japanese Journal of Thoracic Diseases (JPN. J. THORAC. DIS.) (Japan) 1996, 34/SUPPL. (131-135)
CODEN: NKYZA ISSN: 0301-1542
DOCUMENT TYPE: Journal; Conference Paper
LANGUAGE: JAPANESE SUMMARY LANGUAGE: ENGLISH; JAPANESE
NUMBER OF REFERENCES: 8

Attachment and migration of bronchial epithelial cells are important in re-epithelization after tissue injury. We hypothesized that inflammatory cytokines alter bronchial epithelial cell attachment and migration. To test this hypothesis, we studied the effects of mononuclear-cell-conditioned medium on attachment and migration of bronchial epithelial cells in response to fibronectin in vitro. This medium was prepared from bovine blood mononuclear cells that were stimulated with concanavalin A; it stimulated bronchial epithelial cell migration but **inhibited** attachment to fibronectin. Sephadex G-75 column chromatography of the medium revealed two peaks of activity for stimulation of migration. Activity in the higher molecular weight peak was partially **inhibited** by anti- ***TNF*** -alpha ***antibodies*** . Activity in the low-molecular-weight peak was lipid-extractable, which suggests that it reflected an arachidonate metabolite. We also studied the effect of bovine herpes **virus**-1 **infection** on migration of bronchial epithelial cells. ***Infection*** with this ***virus*** reduced the migration of bronchial epithelial cells; by 6 hours after **infection**, staining of alphavbeta3 integrins had become more diffuse and was not localized. Thus, mononuclear cells produce inflammatory cytokines with important effects on the migration of bronchial epithelial cells. Viral infection affects that interactions of bronchial epithelial cells with the extracellular matrix.

41/7/39 (Item 5 from file: 73)
DIALOG(R)File 73:EMBASE

06169685 EMBASE No: 1995206715
Gene therapy of rheumatoid arthritis via cytokine regulation: Future perspectives
Chernajovsky Y.; Feldmann M.; Maini R.N.
Kennedy Institute of Rheumatology,Hammersmith, London United Kingdom
British Medical Bulletin (BR. MED. BULL.) (United Kingdom) 1995, 51/2 (503-516)
CODEN: BMBUA ISSN: 0007-1420
DOCUMENT TYPE: Journal; Review
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Following many years of research using isolated human tissues and animal models, sufficient knowledge concerning rheumatoid arthritis has accumulated so that novel immunotherapies have been proposed. Biological agents are being tested in clinical trials and include antibodies to T cells and cytokines. Currently the most promising of these is intravenously administered neutralizing anti- ***TNF*** ***antibody*** . In order to establish **disease** modification, however, therapy needs to be delivered continuously over the long term. The prospect of delivering cytokine **inhibitors** as genetic material (naked DNA), **viruses** or in engineered autologous cells is considered as one option for achieving this goal. We compare two strategies, firstly, using immobile cells such as fibroblasts, myoblasts or keratinocytes, and secondly, the migratory cells of the immune system. The former provides a reservoir of systemic delivery

of the therapeutic protein whereas the latter provides targeted delivery determined by the antigen specificity of the immune cells. Early validation has.begun in animal models of rheumatoid arthritis.

41/7/40 (Item 6 from file: 73)
DIALOG(R)File 73:EMBASE

05695839 EMBASE No: 1994112912
Enhancement of HIV-1 replication in peripheral blood mononuclear cells by Cryptococcus neoformans is monocyte-dependent but tumour necrosis factor-independent
Orendi J.M.; Nottet H.S.L.M.; Visser M.R.; Verheul A.F.M.; Snippe H.; Verhoef J.
Department of Clinical Microbiology, Eijkman-Winkler Inst Med Microbiol, University Hospital Utrecht, Heidelberglaan 100,3584 CX Utrecht Netherlands
AIDS (AIDS) (United Kingdom) 1994, 8/4 (423-429)
CODEN: AIDSE ISSN: 0269-9370
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Objective: To investigate the possible role of Cryptococcus neoformans in HIV-1 pathogenesis. Design: An in vitro system was developed to study HIV-1 replication in freshly HIV-1-**infected** peripheral blood mononuclear cells (PBMC) incubated with whole azide-killed C. neoformans. Methods: Human PBMC or peripheral blood lymphocytes were **infected** with lymphocytotropic HIV-1 and incubated with azide-killed encapsulated or non-encapsulated C. neoformans for 10 days. ***Viral*** replication was followed by HIV-1 p24 enzyme-linked immunosorbent assay and median tissue culture ***infective*** dose determination. Tumour necrosis factor (TNF) release by PBMC, induced by C. neoformans, was measured. Anti- ***TNF*** monoclonal **antibodies** or pentoxifylline were used to **inhibit** TNF bioactivity. Results: Both encapsulated and non-encapsulated C. neoformans enhanced HIV-1 replication in PBMC but not in peripheral blood lymphocytes. C. neoformans induced TNF release by PBMC. Inhibition of TNF bioactivity did not block C. neoformans-enhanced HIV-1 replication in PBMC. Conclusions: C. neoformans can enhance HIV-1 replication in T cells only in the presence of monocytic cells. This enhancement is not dependent on encapsulation nor can it be attributed to TNF release.

41/7/41 (Item 7 from file: 73)
DIALOG(R)File 73:EMBASE

05672517 EMBASE No: 1994072756
Effect of cytokines on HIV replication in CD4sup + lymphocytes: Lack of identity with the CD8sup + cell antiviral factor
Mackewicz C.E.; Ortega H.; Levy J.A.
Cancer Res. Inst./Dept. of Medicine, School of Medicine, University of California,San Francisco, CA 94143-0128 United States
Cellular Immunology (CELL. IMMUNOL.) (United States) 1994, 153/2 (329-343)
CODEN: CLIMB ISSN: 0008-8749
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

CD8sup + cells from HIV-infected individuals inhibit HIV replication in cultured CD4sup + cells by a nonlytic, non-MHC-restricted mechanism. The activity appears to be mediated in part by a soluble antiviral factor (CAF) secreted by the CD8sup + cells. In an attempt to identify this factor a large panel of recombinant cytokines was examined for their effect on HIV replication in CD4sup + cells. In addition to interferon-alpha and -beta. TNFalpha, TGFbeta, and IL-8 reduced **virus** replication in a dose-dependent fashion. In some cases, the effect of the cytokine was also

dependent on the HIV ***infection*** assay used to measure it. Antibodies against the **inhibitory** cytokines, as well as **antibodies** against **TNFbeta**, IFN-alpha, IFN-beta, IL-4, and IL- 6 did not inactivate the antiviral effect of CAF. The data suggest that CAF does not have identity with known antiviral cytokines and therefore CAF may be a novel antiviral factor.

41/7/42 (Item 8 from file: 73)
DIALOG(R)File 73:EMBASE

05340417 EMBASE No: 1993108502
Antiviral effect of TNF-alpha and IFN-gamma secreted from a CD8sup + influenza virus-specific CTL clone
Kuwano K.; Kawashima T.; Arai S.
Department of Microbiology, Kurume University School of Medicine, 67 Asahi-machi,Kurume, Fukuoka 830 Japan
Viral Immunology (VIRAL IMMUNOL.) (United States) 1993, 6/1 (1-11)
CODEN: VIIME ISSN: 0882-8245
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

We observed that an influenza-specific cytotoxic T lymphocyte (CTL) clone (B7B7) stimulated with peptide-antigen could produce TNF-alpha and IFN-gamma simultaneously. The culture supernatant containing both TNF-alpha and IFN-gamma of antigen-stimulated CTL clone B7B7 significantly enhanced the lysis of influenza A/PR/8 **virus-infected** L-M2d6 cells or Meth A cells. Enhanced lysis of influenza ***virus*** - ***infected*** cells by the supernatants was **inhibited** by pretreatment of the supernatant with antimurine **TNF**-alpha **antibody** and antimurine IFN-gamma antibody. In addition to a single CTL clone, we observed that bulk-cultured CTLs were able to produce TNF and IFN when incubated with target cells. These results suggest that the protective mechanism mediated by TNF-alpha and IFN-gamma secreted from CTL may be possible in the course of an influenza infection.

41/7/43 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12953949 PMID: 10903807
Inhibition of NO production in macrophages by IL-13 is counteracted by Herpes simplex virus infection through tumor necrosis factor-alpha-induced activation of NK-kappa B.
Paludan S R; Ellermann-Eriksen S; Malmgaard L; Mogensen S C
Department of Medical Microbiology and Immunology, The Bartholin Building, University of Aarhus, DK-8000 Aarhus C, Denmark. srp@microbiology.au.dk
European cytokine network (FRANCE) Jun 2000, 11 (2) p275-82, ISSN 1148-5493 Journal Code: 9100879
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Interleukin (IL)-13 is known to antagonize many interferon (IFN)-gamma-activated functions in macrophages and among these, nitric oxide (NO) production. We have previously shown that this function of IL-13 is reduced in Herpes simplex virus type 2 (HSV-2)-**infected** macrophages. In the present study we show that IL-13 and IFN-gamma are indeed produced during ***infection*** of BALB/c mice with HSV-2. The lack of **inhibitory** function of IL-13 in **infected** macrophages, which was not overcome even at very high concentrations of IL-13, was not due to impaired IL-13 signalling, since **virus infection** did not affect IL-13-mediated activation of STAT6 (signal transducer and activator of

transcription 6). Neutralizing tumour necrosis factor (***TNF***)-alpha **antibodies** , however, largely restored the effect of IL-13 on NO production in ***virus*** - ***infected*** macrophages. The same was observed after treatment of the cells with **inhibitors** of nuclear factor (NF)-kappa B activation, known to be involved in enhancement of IFN-gamma-induced NO production. Even though IL-13 reduced TNF-alpha secretion by 50%, this did not impair NF-kappa B activation in IFN-gamma-treated cells infected with HSV-2. The results indicate that TNF-alpha, secreted by virus-infected macrophages, activates NF-kappa B which impairs the IL-13-mediated inhibition of inducible NO synthase (iNOS) expression. This could imply that a sustained NO production would be focused to sites of active virus replication.
Record Date Created: 20000925
Record Date Completed: 20000925

41/7/44 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11714511 PMID: 9216202
[Interactions between bronchial epithelial cells and extracellular matrix proteins]
Ito H; Yamauchi K; Inoue H
Third Department of Internal Medicine, Iwate Medical University.
Nihon Kyobu Shikkan Gakkai zasshi (JAPAN) Dec 1996, 34 Suppl p131-5, ISSN 0301-1542 Journal Code: 7505737
Publishing Model Print
Document type: Journal Article ; English Abstract
Languages: JAPANESE
Main Citation Owner: NLM
Record type: MEDLINE; Completed
Attachment and migration of bronchial epithelial cells are important in re-epithelialization after tissue injury. We hypothesized that inflammatory cytokines alter bronchial epithelial cell attachment and migration. To test this hypothesis, we studied the effects of mononuclear-cell-conditioned medium on attachment and migration of bronchial epithelial cells in response to fibronectin in vitro. This medium was prepared from bovine blood mononuclear cells that were stimulated with concanavalin A; it stimulated bronchial epithelial cell migration but **inhibited** attachment to fibronectin. Sephadex G-75 column chromatography of the medium revealed two peaks of activity for stimulation of migration. Activity in the higher molecular weight peak was partially **inhibited** by anti- ***TNF*** -alpha ***antibodies*** . Activity in the low-molecular-weight peak was lipid-extractable, which suggests that it reflected an arachidonate metabolite. We also studied the effect of bovine herpes **virus**-1 **infection** on migration of bronchial epithelial cells. ***Infection*** with this ***virus*** reduced the migration of bronchial epithelial cells; by 6 hours after **infection**, staining of alpha v beta 3 integrins had become more diffuse and was not localized. Thus, mononuclear cells produce inflammatory cytokines with important effects on the migration of bronchial epithelial cells. Viral infection affects the interactions of bronchial epithelial cells with the extracellular matrix.
Record Date Created: 19970923
Record Date Completed: 19970923

41/7/45 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10531680 PMID: 7907003
Effect of cytokines on HIV replication in CD4+ lymphocytes: lack of identity with the CD8+ cell antiviral factor.
Mackewicz C E; Ortega H; Levy J A
Cancer Research Institute, University of California, School of Medicine,

San Francisco 94143-0128.
Cellular immunology (UNITED STATES) Feb 1994, 153 (2) p329-43, ISSN 0008-8749 Journal Code: 1246405
Contract/Grant Number: RO1 AI30350; AI; NIAID
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

CD8+ cells from HIV-infected individuals inhibit HIV replication in cultured CD4+ cells by a nonlytic, non-MHC-restricted mechanism. The activity appears to be mediated in part by a soluble antiviral factor (CAF) secreted by the CD8+ cells. In an attempt to identify this factor a large panel of recombinant cytokines was examined for their effect on HIV replication in CD4+ cells. In addition to interferon-alpha and -beta, TNF alpha, TGF beta, and IL-8 reduced **virus** replication in a dose-dependent fashion. In some cases, the effect of the cytokine was also dependent on the HIV ***infection*** assay used to measure it. Antibodies against the **inhibitory** cytokines, as well as **antibodies** against **TNF** beta, IFN-alpha, IFN-beta, IL-4, and IL-6 did not inactivate the antiviral effect of CAF. The data suggest that CAF does not have identity with known antiviral cytokines and therefore CAF may be a novel antiviral factor.

Record Date Created: 19940401
Record Date Completed: 19940401

41/7/46 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10150597 PMID: 8476505
Antiviral effect of TNF-alpha and IFN-gamma secreted from a CD8+ influenza virus-specific CTL clone.
Kuwano K; Kawashima T; Arai S
Department of Microbiology, Kurume University School of Medicine, Fukuoka, Japan.
Viral immunology (UNITED STATES) Spring 1993, 6 (1) p1-11, ISSN 0882-8245 Journal Code: 8801552
Publishing Model Print
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: MEDLINE; Completed

We observed that an influenza-specific cytotoxic T lymphocyte (CTL) clone (B7B7) stimulated with peptide-antigen could produce TNF-alpha and IFN-gamma simultaneously. The culture supernatant containing both TNF-alpha and IFN-gamma of antigen-stimulated CTL clone B7B7 significantly enhanced the lysis of influenza A/PR/8 **virus-infected** L-M2d6 cells or Meth A cells. Enhanced lysis of influenza ***virus*** - ***infected*** cells by the supernatants was **inhibited** by pretreatment of the supernatant with antimurine **TNF**-alpha **antibody** and antimurine IFN-gamma antibody. In addition to a single CTL clone, we observed that bulk-cultured CTLs were able to produce TNF and IFN when incubated with target cells. These results suggest that the protective mechanism mediated by TNF-alpha and IFN-gamma secreted from CTL may be possible in the course of an influenza infection.

Record Date Created: 19930527
Record Date Completed: 19930527

41/7/47 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

143476402 CA: 143(26)476402y PATENT
Multiple-variable dose regimen for antibodies and inflammation inhibitors

for treating tumor necrosis factor α-related inflammatory disorders using antibodies
INVENTOR(AUTHOR): Hoffman, Rebeca S.; Chartash, Elliot; Taylor, Lori K.; Granneman, George Richard; Yan, Philip
LOCATION: Bermuda
ASSIGNEE: Abbott Biotechnology Ltd.
PATENT: PCT International ; WO 2005110452 A2 DATE: 20051124
APPLICATION: WO 2005US12007 (20050411) *US 2004PV561139 (20040409) *US 2004PV561710 (20040412) *US 2004PV569100 (20040507)
PAGES: 141 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: A61K-038/00A
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW DESIGNATED REGIONAL: BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG
SECTION:
CA215003 Immunochemistry
CA201XXX Pharmacology
CA203XXX Biochemical Genetics
CA263XXX Pharmaceuticals
IDENTIFIERS: human tumor necrosis factor alpha antibody fragment inflammatory disease
DESCRIPTORS:
Inflammation... Spinal column,disease...
ankylosing spondylitis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Hepatitis...
C; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Drug delivery systems...
carriers; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Lung,disease...
chronic obstructive; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Psoriasis...
chronic plaque psoriasis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Inflammation...
Crohn's disease; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Intestine,disease...
Crohn's; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Tumor necrosis factors...
diseases associated with, treatment of; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Metabolism,animal...
disorder; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Lung,disease...
fibrosis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory

multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Arthritis...
pseudogout; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Arthritis...
psoriatic arthritis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Fibrosis...
pulmonary; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Artery,disease...
restenosis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Spinal column,disease...
spondyloarthropathy; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Eye,disease... Inflammation...
uveitis, autoimmune; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
Blood vessel,disease... Inflammation...
vasculitis; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
CAS REGISTRY NUMBERS:
869759-78-4 869759-79-5 amino acid sequence, anti-TNFα light chain CDR3; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
869759-80-8 869759-81-9 amino acid sequence; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
59-05-2 in treatment of inflammation; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
170277-31-3 185243-69-0 multiple-variable dose regimen for antibodies and inflammation inhibitors for treating TNFα-related inflammatory disorders
869759-88-6 869759-89-7 unclaimed nucleotide sequence; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating tumor necrosis factor α-related inflammatory disorders using antibodies
869759-86-4 869759-87-5 unclaimed protein sequence; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating tumor necrosis factor α-related inflammatory disorders using antibodies
194803-74-2 194803-75-3 194803-76-4 194803-77-5 194803-78-6 194803-79-7 194803-80-0 194803-81-1 194803-82-2 194803-83-3 194803-84-4 194803-85-5 194803-86-6 194803-87-7 194803-88-8 194803-89-9 194803-90-2 194803-91-3 194803-92-4 194803-93-5 194803-94-6 194803-95-7 194803-96-8 194803-97-9 194803-98-0 194803-99-1 194804-00-7 194804-01-8 194804-02-9 unclaimed sequence; multiple-variable dose regimen for antibodies and inflammation inhibitors for treating tumor necrosis factor α-related inflammatory disorders using antibodies

41/7/48 (Item 2 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

138253368 CA: 138(17)253368n JOURNAL

Anti-TNF antibody treatment reduces mortality in experimental dengue virus infection
AUTHOR(S): Atrasheuskaya, Alena; Petzelbauer, Peter; Fredeking, Terry M.; Ignatyev, George
LOCATION: State Research Center of Virology and Biotechnology 'Vector', Novosibirsk, Russia,
JOURNAL: FEMS Immunol. Med. Microbiol. (FEMS Immunology and Medical Microbiology) DATE: 2003 VOLUME: 35 NUMBER: 1 PAGES: 33-42 CODEN: FIMIEV ISSN: 0928-8244 PUBLISHER ITEM IDENTIFIER: 0928-8244(02)00424-8
LANGUAGE: English PUBLISHER: Elsevier Science B.V.
SECTION:
CA215005 Immunochemistry
IDENTIFIERS: tumor necrosis factor receptor cytokine dengue virus immunotherapy
DESCRIPTORS:
Disease models... Dengue virus 2... Human... Anemia(disease)... Paralysis ... Shock(circulatory collapse)... Interleukin 1β... Interleukin 6... Interleukin 10... Interleukin 1 receptor antagonist... Immunotherapy... Antibodies...
anti-TNF antibody treatment reduces mortality in exptl. dengue virus infection
Platelet(blood)...
disease, thrombocytopenia; anti-TNF antibody treatment reduces mortality in exptl. dengue virus infection
Tumor necrosis factor receptors...
type 1, sol; anti-TNF antibody treatment reduces mortality in exptl. dengue virus infection

41/7/49 (Item 3 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)

115134002 CA: 115(13)134002d PATENT
Tumor necrosis factor α (TNF) binding ligands for selective inhibition and enhancement of TNF activities
INVENTOR(AUTHOR): Rathjen, Deborah Anne; Aston, Roger
LOCATION: Australia
ASSIGNEE: Peptide Technology Ltd.
PATENT: PCT International ; WO 9102078 A1 DATE: 910221
APPLICATION: WO 90AU337 (900807) *AU 895662 (890807) *AU 897576 (891124)
PAGES: 83 pp. CODEN: PIXXD2 LANGUAGE: English
PATENT CLASSIFICATIONS:
CLASS: C12P-021/08A; C07K-015/28B
DESIGNATED COUNTRIES: AU; CA; JP; US DESIGNATED REGIONAL: AT; BE; CH; DE ; DK; ES; FR; GB; IT; LU; NL; SE
SECTION:
CA215005 Immunochemistry
CA201XXX Pharmacology
IDENTIFIERS: tumor necrosis factor binding ligand, monoclonal antibody TNF activity modification
DESCRIPTORS:
Endothelium...
cell of, receptors on, tumor necrosis factor binding to, ligand inhibiting
Blood-coagulation factors,PCA (procoagulant activity)...
endothelial, induction of, by tumor necrosis factor α of human, ligand modification of
Ligands...
human tumor necrosis factor-binding, TNF activity modification with
Parasite... Virus...
infection with, tumor necrosis factor levels high in, monoclonal antibodies inhibiting TNF in treatment of
Bladder,neoplasm, carcinoma... Mammary gland,neoplasm, carcinoma...
inhibitor of, tumor necrosis factor α of human with ligand modifying TNF activity as
Lymphokines and Cytokines,tumor necrosis factor-α...

ligand binding to, of human, TNF activity modification with
Interferons,α... Lymphokines and Cytokines,interleukin 2...
Radiotherapy...
neoplasm inhibition with ligand bound to human TNF and
Molecular structure-biological activity relationship...
of regions of tumor necrosis factor α of human
Antibodies... Antibodies,monoclonal...
to tumor necrosis factor α of human, TNF activity modification
with
Shock,toxic shock syndrome...
treatment of, with ligand binding human tumor necrosis factor α
Fibrins...
tumor deposition of, induction of, by tumor necrosis factor α of
human, ligand modification of
Proteins...
tumor necrosis factor α-binding, TNF activity modification with
Receptors...
tumor necrosis factor α of human binding to, ligand modification
of
Neoplasm... Toxicity,cyto-...
tumor necrosis factor α of human effect on, ligand modification
of
Neoplasm inhibitors... Neoplasm inhibitors,carcinoma... Neoplasm
inhibitors,melanoma...
tumor necrosis factor α of human with ligand modifying TNF
activity as
Infection...
tumor necrosis factor levels high in, monoclonal antibodies inhibiting
TNF in treatment of
CAS REGISTRY NUMBERS:
136040-08-9 136040-09-0 136040-10-3 136040-11-4 136040-12-5
136040-13-6 136040-14-7 136040-15-8 136040-16-9 in tumor necrosis
factor α of human activity regions determination
136040-07-8 ligand binding to human tumor necrosis factor activity
modification with
50-07-7 50-76-0 51-21-8 57-22-7 147-94-4 865-21-4 11056-06-7
15663-27-1 20830-81-3 23214-92-8 30516-87-1 59277-89-3 neoplasm
inhibition with ligand bound to human TNF and
?